**United States
Department of
Agriculture**

Service Center
Modernization Initiative
(SCMI)

GUIDE

Field Service Center Backup Policy and Procedures Guide

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Service Center Server Configuration Team

Field Service Center Backup Policy and Procedures

Introduction

This document describes the roles and responsibilities of the Local Site Co-Administrators and the backup policies and procedures concerning the CCE Server.

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1. Overview

1.1. Purpose

The USDA Service Center concept is a cornerstone of the agency reorganization effort undertaken subsequent to the Department of Agriculture Reorganization Act of 1994. By consolidating its individual agency field offices into service centers, the USDA intends to reduce its total number of offices, and at the same time provide taxpayers with more efficient service at reduced cost.

One of the key components of the Service Center Modernization Initiative (SCMI) implementation effort is the *Common Computing Environment* (CCE) project, which seeks to establish a consistent, common, and compatible information technology solution that will allow sharing of data and equipment among the agencies that make up each service center.

1.2. Process/Purpose

This *Field Service Center Backup Policy and Procedures* guide will assist Field Service Center personnel during completion of the tape rotation procedures required for backup of the Compaq Proliant ML370 Server.

1.3. Tables, Figures, Bullet Items and Notes

1.3.1. Tables

The following is an example of a table inserted in the document:

Table 1–Example of a table

Heading 1	Heading 2	Heading 3	Heading 4

Tables use the **Table heading** style for the table caption. The style is 12-pt, bold, Times New Roman, centered. The caption is centered above the table. Columns headings use the **Column heading** style. The style is 8 pt. Times New Roman, centered.

1.3.2. Figures

The following is an example of a figure inserted in the document:

Figure 1–Example of a figure

Figures should fit within the page margins, if possible. Captions use the **Figure Title** style. The style is 12 pt., bold, Times New Roman, centered.

1.3.3. Bullet Items

The following is an example of bullet item inserted in the document:

1. Enter text here.
2. Enter text here.
3. Enter text here.

Sub-menu Option 1 is for the East region and will direct the call to the Help Desk in St. Louis.

Numbered bullets use **listnum2** style and should fit within the page margins, if possible. The style is 11 pt. Arial.
Bullets use **List Bullet 2** style and should fit within the page margins, if possible. The style is 11 pt. Arial.

1.3.4.   Note

The following is an example of note item inserted in the document:

➲   *Enter text here.*

Notes use **Note** style and should fit within the page margins, if possible. The style is 11 pt., italic, Times New Roman.

1.4.   Text and Instructional Formats

A number of format conventions have been employed to help the reader distinguish between the various types of instructions included in this guide.

Text displayed on the screen in DOS mode is shown in a bolded Arial Narrow font, white font color, on a teal background.

Microsoft ® Windows NT ™ Version 4.0

Text that you are required to type is shown in bolded, italicized Courier New font with the variables enclosed in square brackets.
In the text box type: *504*
[user id]@asimail.net

Items you are required to select or highlight are shown in, bolded, Times New Roman font, with the variable items italicized.
In the list box, highlight **Project 1.**
In the list box, highlight a ***Project.***

Keystrokes are bolded and enclosed in angle brackets:
<Enter>   <Ctrl>+<Alt>+<Delete>

Program names, titles of windows, and dialog boxes are shown in a bolded Arial Narrow font with small caps.
In the **LOGON INFORMATION** dialog box...

Buttons, radio buttons, and check boxes are shown in a bolded Arial Narrow typeface and surrounded by square brackets:
Click [Start]

Menus are shown in a bolded Arial Narrow , 12 pt font:
Click on File ➔ Exit

Field names, text boxes, and list box references are shown in bolded Arial typeface:
The **Employee** text box

Notes are shown in italicized Times New Roman 12 pt typeface and are prefaced by an arrow surrounded by circle bullet.

➲   *Here's a little something to help you out.*

Warning messages, intending to warn you against possible action that could damage your system, are bolded, in a white font on a dark background.

Warning! Make sure that you don't do this or. . .

2. Server Backup Responsibilities Overview

The local Food and Agricultural Council (FAC) representatives will designate two persons representing the occupying agencies to serve as Local Site Co-Administrators responsible for server backup duties. All Office locations with servers installed will have these designees. The Local Site Co-Administrators will be responsible for backup duties, including tape maintenance. Tape maintenance includes the responsibility of daily rotation of the backup tapes as needed for successful completion of scheduled jobs, the visual inspection of the tape unit and tape cassette for maintenance issues and the proper storage of the backup tapes not currently in use.

State IT personnel remain responsible for all backup scheduling, scripting, and backup job configuration. If a backup job needs to be re-scheduled for any reason, the Local Site Co-Administrator(s) will escalate the issue to their respective State IT Support Staff.

Each morning the Local Site Co-Administrator will change the tape(s) after a successful backup the previous night and review the backup report log and record the appropriate entries on the backup log. State IT personnel will also review the appropriate log files on a periodic basis to verify backup job completion.

IT staff members should refer to the *CCE Compaq Proliant ML370 Server System Administration Guide* for information regarding successful backup, scheduling, and verification processes.

2.1. Summary of Daily and Periodic Responsibilities

2.1.1. Daily Tasks – Local Site Co-Administrators

a) Obtain the Current Backup Log Report from the Printer or via E-Mail and review the report.

b) Record the appropriate information on the Backup Log Sheet as found in Appendix A.

c) File the Current Backup Log Report and remove the Log Report that is over 1 month old.

d) Remove the tape that has been ejected from the tape drive and insert the next scheduled tape. (In some cases if the backup requires a second tape, you will need to insert the next tape so the backup can continue).

e) Verify that the appropriate lights on the Compaq Server are lit and listen for any abnormal sounds. Also, review the status of other devices such as routers, switches and DSU units as appropriate. An example of the LED lights on the Tape Drive is included in Appendix C.

f) If the backup was a complete backup, take the current complete backup tape(s) off site.

g) Communicate with State IT staff regarding backup errors as needed.

2.1.2. Periodic Tasks

   a) Clean Tape Drive – Once per month

   b) Ensure adequate number of tapes on hand for backup rotation

   c) Request additional backup and cleaning tapes – as required

   d) Ensure off-site information in file with State IT staff is accurate and updated – as needed

2.2. Labeling of Backup Tape(s)

All backup tape cartridges shall be externally labeled with permanent ink and identified as follows:

Server Name: _____(i.e. CODENVERC001)
Type of Backup: _____(i.e. C for Complete or D for Differential)
Day of Week: _____(i.e. M, T, W, Th, or F.)
Set #:   _____(i.e. 1, 2, 3, etc.)
Tape #:   _____(i.e. Tape 1, Tape 2, Tape 1 of 2, Tape 2 of 2)

In order to fit this information on the edge of the tape, you can input the information as follows: (Put this on the edge that does not open up. You should also put this information on the plastic case.
          Server Name - C-Day–Set #-Tape #.

Example: CODENVER00C001 - C-W-Set 1-Tape 1
                                (This is a tape used for a complete, performed on Wednesday, Set 1 and Tape 1)
               CODENVER00C001 - D-M-Set 1-Tape 1
                                (This is a tape use for a differential backup, performed on Monday, Set 1 and Tape 1)
               CODENVER00C001 - C-W Set 1-Tape 1 of 2
                                (This is a tape used for a complete backup, performed on Wednesday, Set 1, Tape 1 of 2)

Label all tapes at one time to avoid confusion. Label the tape itself and the tape case. Four tapes will be provided for differential backups and six tapes will be provided for complete backups. One tape will not be labeled and will be a spare. Label the ten tapes individually as follows:

Table 1 - Example of Tape Labels for Backup Set of 10 Tapes
(Complete Backups requiring 1 Tape for a Backup)

Server Name - D-M–Set 1-Tape 1. **Example: CODENVER00C001-D-M-Set 1-Tape 1**	Server Name - C-W–Set 1-Tape 1 **Example: CODENVER00C001-C-W-Set 1-Tape 1**
Server Name - D-T–Set 2-Tape 1. **Example: CODENVER00C001-D-T-Set 2-Tape 1**	Server Name - C-W–Set 2-Tape 1 **Example: CODENVER00C001-C-W-Set 2-Tape 1**
Server Name - D-TH–Set 3-Tape 1. **Example: CODENVER00C001-D-TH-Set 3-Tape 1**	Server Name - C-W–Set 3-Tape 1 **Example: CODENVER00C001-C-W-Set 3-Tape 1**
Server Name - D-F–Set 4-Tape 1. **Example: CODENVER00C001-D-F-Set 4-Tape 1**	Server Name - C-W–Set 4-Tape 1 **Example: CODENVER00C001-C-W-Set 4-Tape 1**
	Server Name - C-W–Set 5-Tape 1 **Example: CODENVER00C001-C-W-Set 5-Tape 1**
	Server Name - C-W–Set 6-Tape 1 **Example: CODENVER00C001-C-W-Set 6-Tape 1**

Table 2 - Example of Tape Labels for Backup Set of 10 Tapes
(Complete Backups requiring 2 Tapes for a Backup)

Server Name - D-M–Set 1-Tape 1. **Example: CODENVER00C001-D-M-Set 1-Tape 1**	Server Name - C-W–Set 1-Tape 1 of 2 **Example: CODENVER00C001-C-W-Set 1-Tape 1 of 2**
Server Name - D-T–Set 2-Tape 1. **Example: CODENVER00C001-D-T-Set 2-Tape 1**	Server Name - C-W–Set 1-Tape 2 of 2 **Example: CODENVER00C001-C-W-Set 1-Tape 2 of 2**
Server Name - D-TH–Set 3-Tape 1. **Example: CODENVER00C001-D-TH-Set 3-Tape 1**	Server Name - C-W–Set 2-Tape 1 of 2 **Example: CODENVER00C001-C-W-Set 2-Tape 1 of 2**
Server Name - D-F–Set 4-Tape 1. **Example: CODENVER00C001-D-F-Set 4-Tape 1**	Server Name - C-W–Set 2-Tape 2 of 2 **Example: CODENVER00C001-C-W-Set 2-Tape 1 of 2**
	Server Name - C-W–Set 3-Tape 1 of 2 **Example: CODENVER00C001-C-W-Set 3-Tape 1 of 2**
	Server Name - C-W–Set 3-Tape 2 of 2 **Example: CODENVER00C001-C-W-Set 3-Tape 1 of 2**

2.3. Backup Tape Storage

Backup tapes must be stored away from temperature extremes. These tapes will contain sensitive data requiring storage in a secure place. Vendor specifications require tape storage between 41 to 113 degrees Fahrenheit and 20 to 80% humidity. The off-site storage location shall be a safe deposit box at a local bank. The Local Site Co-Administrator(s) should have signatures on file authorizing access to the safe deposit box.

If storage in a safe deposit box is not possible, a commercial off-site storage facility with controlled access, requiring entries maintained in an access log, is acceptable. An employee's home is not acceptable except during an emergency.

In cases where more than one USDA office is in the same town, the other office can be used for the off-site location as long as it is more than one block away from the other site.

When the appropriate off-site and on-site storage locations have been determined, the Local Site Co-Administrator(s) will advise the State IT Team of those locations in writing. The State IT Team shall maintain a file with those locations for all Field Service Centers within their jurisdiction. The file will include the contact names and phone numbers for all off-site storage locations.

2.4. On-Site Storage of Backup Tapes

All backup tapes used for the current week shall be stored in the on-site, restricted-access, temperature-controlled environment. Normal room temperatures should meet vendor specifications. All other backup tapes shall be stored in a comparable environment as the off-site storage location designated for that Field Service Center. If a local safe is used for storage of the tapes on site it will be necessary to assure there is always someone in the office that knows the combination of the safe. A locked file cabinet can be used for the storage of the tapes and is ideal for the Co-Administrators to have access to the cabinet.

2.5. Off-Site Storage of Backup Tapes

All backup tapes used for the previous weeks shall be stored in the official off-site location designated for the Field Service Center. The complete backup tapes are the only tapes required to be taken off site.

2.6. Creation of Manual Log File

The Manual Backup Log, provided in Appendix A, will assist personnel by maintaining all relevant backup information in one location. Use of the Manual Backup log is mandatory, and will be used to record the creation date, tape used, backup type and errors reported during each backup. When a tape is moved to off-site storage, record the date of transport on the log also. The log is to be stored near the server cabinet itself, to ensure timely and accurate documentation of the backups. The log is designed in a month-by-month format, and previous copies will be stored for a minimum period of one year.

2.7. Backup Tape Rotation

The CCE Server is shipped with eleven data cartridges and one cleaning cartridge. CCE policy requires a complete backup of the server every Wednesday night. On Thursdays, the complete backup tape(s) will be transported to and the oldest previous complete backup tape(s) retrieved

from the off-site storage facility. When a holiday falls on Wednesday, a manual complete backup will be performed the next business day. You will need to contact the appropriate State IT Staff for additional direction when the manual backup needs to be performed. This six week sequential tape rotation should be the easiest to maintain.

Differential tapes will be rotated throughout the week for differential backups on Monday, Tuesday, Thursday, and Friday nights. Since the differential tapes will be used more often, scheduling a differential will reduce tape and tape drive wear. In addition, in the future there may be a need to schedule additional tasks to occur during the night hours. Since a differential backup will take less time to complete, this will provide additional time frames for scheduled tasks.

Table 3 - EXAMPLE OF A 6-WEEK TAPE ROTATION

Day of week	Example Date	Tape Label
MONDAY – Week 1	06/03/02	Server Name - D-M–Set 1-Tape 1.
TUESDAY – Week 1	06/04/02	Server Name - D-T–Set 2-Tape 1.
WEDNESDAY- Week 1	06/05/02	Server Name - C-W–Set 1-Tape 1
THURSDAY – Week 1	06/06/02	Server Name - D-TH–Set 3-Tape 1.
FRIDAY – Week 1	06/07/02	Server Name - D-F–Set 4-Tape 1.
MONDAY – Week 2	06/10/02	Server Name - D-M–Set 1-Tape 1.
TUESDAY – Week 2	06/11/02	Server Name - D-T–Set 2-Tape 1.
WEDNESDAY- Week 2	06/12/02	Server Name - C-W–Set 2-Tape 1
THURSDAY – Week 2	06/13/02	Server Name - D-TH–Set 3-Tape 1.
FRIDAY – Week 2	06/14/02	Server Name - D-F–Set 4-Tape 1.
MONDAY – Week 3	06/17/02	Server Name - D-M–Set 1-Tape 1.
TUESDAY – Week 3	06/18/02	Server Name - D-T–Set 2-Tape 1.
WEDNESDAY- Week 3	06/19/02	Server Name - C-W–Set 3-Tape 1
THURSDAY – Week 3	06/20/02	Server Name - D-TH–Set 3-Tape 1.
FRIDAY – Week 3	06/21/02	Server Name - D-F–Set 4-Tape 1.
The rotation will continue, with the Wednesday tape number 4 – 6 added to the rotation. Thus allowing a 6 week backup rotation.		

Weekly, complete backup tapes will be stored at the designated off-site storage facility. When the most recent complete backup tape is transported to the off-site storage facility, the oldest backup tape will be returned to the local Field Service Center for re-use as a weekly backup.

NOTE: Data growth and tape wear eventually will require the purchase of additional or replacement cartridges.   When tape cartridges are needed, the State's IT staff will work with the Procurement staff to purchase additional tape cartridges. According to CCE policy, a weekly, complete backup must be run on every server; therefore it is the responsibility of the State's IT staff to ensure that enough tapes are available to accomplish this task as needed. The IT staff will be responsible to assure the cost of the tapes is shared as appropriate among agencies.

The column, "Tape Used" in the Backup Log in Appendix A can be used as a tool to determine which tape is to be used for the next backup.

2.8.   Backup Report

The automated backup task will generate a backup report, which will be sent to a local printer and to the local Site Co-Administrators E-Mail account. In addition a copy of the report is stored on the server in the f:\serverbackup folder. The backup report must be reviewed each morning to assure a backup has been performed successfully. The printed backup report should be maintained for 1 month. A three-ring binder or file folder can be used to retain the reports. The log reports on the Compaq Server will be maintained for 1 year. It will be the responsibility of the State IT staffs to periodically remove the log reports from the server that are greater than one year.

The following items must be reviewed on a daily basis.

Table 4 – Items To Be Reviewed On The Log Report
(An example of the backup report is shown in Appendix B)

Item For Review	Comments	Information From Example Report – Appendix B
Subject	This line will indicate a Complete or a Differential backup was performed	Complete Backup
DATE	Will indicate the date of the backup	(year.mo.day.time) 2002.xx.xx.x.xx
Directory of e:\usda\backup	If applicable a listing of zip files will be recorded indicating the specific workstations that have been backed up.	(date) (time) 541,303 d001.zip 1 File(s) 541,303 bytes 0 Dir(s) 55,507,914,.756 bytes free
Media Name	This is the name of the catalog that is stored on the backup tape.	(year.mo.day.time) Ex: 2002.05.13.11.00p Record this information on the backup log sheet
Backup of C:, E: F: G: and System State. Also H: on systems with an External Array	Each drive letter on the server will have a description of the following items: Backup set number; Backup description; Backup Type; Time and Date Backup Started; Files that were skipped; Number of Directories; Number of Files; Number of Files Skipped; Number of Bytes; Time it took to complete the backup of the drive letter	Items to be aware: Review the Number of Bytes from one day to the next. If there is a major difference in size, then a problem may exist. If there are files that were skipped on the E: drive, this may be because an employee left their computer logged on with an open file. If the byte count of the drive letters combined reaches about 37-38,000,000,000 bytes, the system will start requiring two tapes. If you do not receive a printout via the printer or e-mail it could mean the system backup has halted due to a tape drive problem, or is waiting for a second tape. Contact your IT staff. If you get an error message of No Unused Media Available it means the backup did not work. This could be because a tape was not inserted or the backup has halted.

2.9.   Backup Log

Appendix A provides a Backup Log that should be used to record the backup information. It is very important to record the Media Name that is provided on the Backup Report.

2.10. Hardware Check

When the backup/tape rotation is complete each day, examine the front of the server for hardware status.   All server hard drives have status indicator lights on the front edges. A randomly flashing green arrow indicates drive activity and normal status. A glowing amber or red light indicates drive failure that requires immediate attention. If you see an amber or red light glowing on the front edge of a server hard drive, immediately contact a member of the State IT Team.

2.11. Cleaning the Tape Drive

To assure the tape drive is properly maintained the tape drive must be cleaned the first business day of each month. The cleaning of the tape drive requires an AIT Cleaning Cartridge.

The procedures to clean the tape drive are as follows:

1.   Locate the AIT Cleaning Cartridge and hold it so the wording is facing to the right.

2.   Gently push the cleaning tape into the tape drive until it clicks.

3.   The tape drive light will illuminate and the cleaning will begin. After about 20-30 seconds the tape will automatically eject.

4.   Remove the tape and store it in the plastic case.

5.   Record on the backup log that the tape drive was cleaned.

2.12. Change in Schedule for Complete Backup

One of the reasons a Complete Backup is scheduled to occur on Wednesdays instead of Fridays is the inability to take a complete backup tape off-site on a Saturday.

In cases where Wednesday is a holiday, then a complete backup should be performed manually on the next business day, i.e. Thursday. The State IT Staff person will be responsible to contact the site and have them put the Wednesday tape in the drive and connect to the server and perform the backup during the day. This will avoid the necessity to change the backup schedule and then set it back after the backup has been completed.

2.13. Trouble Shooting

You should report to your next level of IT support when the tape does not eject, the backup log printout is not received, or incorrect lights are appearing on the Compaq server.

Appendix A. BACKUP LOG

Month: _____			Server Name: _____		
Date	Tape Used	Media Name From Backup Log	Abnormal Errors Reported (Y / N)	Off-Site Moved (Date moved)	Initials

Appendix B. EXAMPLE OF BACKUP LOG

SUBJECT: Complete Backup
DATE: 2002.xx.xx.x.xx

Volume in drive E is Data
Volume Serial Number is XXXX-XXXX

Directory of e:\usda\backup

(Would contain listing of backup files from the workstation backups)

Example:

04/23/2002   10:00p   541,303   d001.zip
                        1 File(s)   541,303 bytes
                        0 Dir(s)   55,507,914,752 bytes free

Backup Status **(The following will show the number of directories and files backed up.**
            You may want to record in a log sheet the different drives and the
            number of files backed up)

Operation: Backup
Active backup destination: 8mm AIT1
Media name: "2002.05.13.11.00p"

Backup of "C: "
Backup set #1 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Backup Type: Normal

Backup started on 3/26/2002 at 5:02 AM.
Warning: The file \WINNT\security\edb.log in use - skipped.   **(This is normal)**
Warning: The file \WINNT\security\tmp.edb in use - skipped. **(This is normal)**
Warning: The file \WINNT\security\logs\scepol.log in use - skipped. **(This is normal)**
Warning: The file \WINNT\system32\Perflib_Perfdata_598.dat in use - skipped. **(This is normal)**
Warning: The file \WINNT\system32\dns\dns.log in use - skipped.   **(This is normal)**
Backup completed on 3/26/2002 at 5:08 AM.
Directories: 1113
Files: 7976
Skipped: 5
Bytes: 763,971,642
Time: 6 minutes and 6 seconds
Media name: "2002.03.26.5.00a" **(This media name needs to be recorded. It will help to**
determine the catalog name in the event a file needs to be restored)

Backup of "E: Data"
Backup set #2 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Backup Type: Normal

Backup started on 3/26/2002 at 5:08 AM.
Backup completed on 3/26/2002 at 5:54 AM.
Directories: 2760
Files: 38764
Bytes: 6,035,031,558
Time: 46 minutes and 18 seconds
Media name: "2002.03.26.5.00a"

Backup of "F: Logs"
Backup set #3 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Backup Type: Normal

Backup started on 3/26/2002 at 5:54 AM.
Warning: The file \System32\Config\AppEvent.evt in use - skipped.
Warning: The file \System32\Config\DNSEvent.evt in use - skipped.
Warning: The file \System32\Config\SecEvent.evt in use - skipped.
Warning: The file \System32\Config\SysEvent.evt in use - skipped.
Backup completed on 3/26/2002 at 5:54 AM.
Directories: 10
Files: 108
Skipped: 4
Bytes: 269,797
Time: 3 seconds
Media name: "2002.03.26.5.00a"

Backup of "G: Ris"
Backup set #4 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Backup Type: Normal

Backup started on 3/26/2002 at 5:54 AM.
Backup completed on 3/26/2002 at 6:03 AM.
Directories: 47
Files: 5878
Bytes: 334,637,884
Time: 8 minutes and 14 seconds
Media name: "2002.03.26.5.00a"

Backup of "System State"
Backup set #5 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Backup Type: Copy

Backup started on 3/26/2002 at 6:03 AM.

Error: You do not have permission to access portions of System State\Sys
Vol\e:\winnt\sysvol\domain\DO_NOT_REMOVE_NtFrs_PreInstall_Directory. **(This is normal)**
Please see the owner or administrator to get permission. **(This is normal)**
Backup completed on 3/26/2002 at 6:11 AM.
Directories: 196
Files: 2040
Bytes: 1,809,152,427
Time: 7 minutes and 58 seconds

----------------------**(The following will verify the backup completed successfully. The byte**
count for the verify should closely match the entries above.)

Verify Status
Operation: Verify After Backup
Active backup destination: 8mm AIT1

Verify of "C:"
Backup set #1 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Verify started on 3/26/2002 at 6:11 AM.
Verify completed on 3/26/2002 at 6:14 AM.
Directories: 1113
Files: 7976
Different: 0
Bytes: 763,971,642
Time: 3 minutes and 2 seconds

Verify of "E:"
Backup set #2 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Verify started on 3/26/2002 at 6:14 AM.
Verify completed on 3/26/2002 at 6:39 AM.
Directories: 2760
Files: 38764
Different: 0
Bytes: 6,035,031,558
Time: 24 minutes and 45 seconds

Verify of "F:"
Backup set #3 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Verify started on 3/26/2002 at 6:39 AM.
Verify completed on 3/26/2002 at 6:39 AM.
Directories: 10
Files: 108
Different: 0
Bytes: 269,797
Time: 1 second

Verify of "G:"
Backup set #4 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Verify started on 3/26/2002 at 6:39 AM.

Verify completed on 3/26/2002 at 6:41 AM.
Directories: 47
Files: 5878
Different: 0
Bytes: 334,637,884
Time: 1 minute and 26 seconds

Verify of "System State"
Backup set #5 on media #1
Backup description: "Complete System Backup on Media Name 2002.03.26.5."
Verify started on 3/26/2002 at 6:41 AM.
Verify completed on 3/26/2002 at 6:48 AM.
Directories: 196
Files: 2040
Different: 0
Bytes: 1,809,152,427
Time: 7 minutes and 6 seconds

Appendix C. TAPE DRIVE LED'S

The following chart is found on page 5-3 of the Compaq AIT 35 LVD Tape Drive manual and describes the tape drive LED indicators.

LED			STATE
			No activity, no tape loaded
			SCSI activity, no tape loaded
			Tape loading/unloading
			Tape loading/unloading, write-protected
			Tape loaded, end of cleaning
			Tape loaded
			SCSI activity, tape loaded
			SCSI/Drive activity, tape loaded
			Tape loaded, write-protected
			Tape loaded, error rate warning
			Cleaning request
			Self-test failure
			Waiting for reset
			Waiting for eject

Legend:	LED Flash Symbol	LED Display
		Off
		On
		Quick Flashes
		Quick flash with a long pause in between
		Long flash with a short pause in between
		Two quick flashes with a long pause in between
		Status irrelevant

Figure A1 – Tape Drive LED Indicators